

European Railway Agency
An agency of the European Union

The Relevance of the European Railway Agency to Britain's Railways

RSEI 21st Anniversary Celebrations
Birmingham, 4th December 2015
Ernest Godward, CME Unit

ERA's mission



MAKING THE RAILWAY SYSTEM WORK BETTER FOR SOCIETY

The **objective** of ERA is to contribute, on technical matters, to the implementation of the European Union legislation aimed at improving the **competitive position of the railway sector** by:

- Developing a common approach to **safety** on the European railway system
- Enhancing the level of **interoperability** of railway systems
- Contributing to creating a **Single European Railway Area** without frontiers, guaranteeing a high level of safety



Founded in 2004*
Valenciennes (F)
approx. 165 staff



The "4th Railway Package" will transform ERA from a consultative body to an Authority capable of issuing Safety Certifications and Vehicle Authorisations (by 2019)

*) with the 2nd Railway Package

Safety First!

Number of significant accidents going down

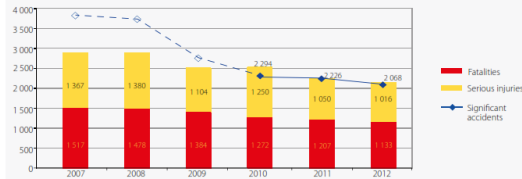
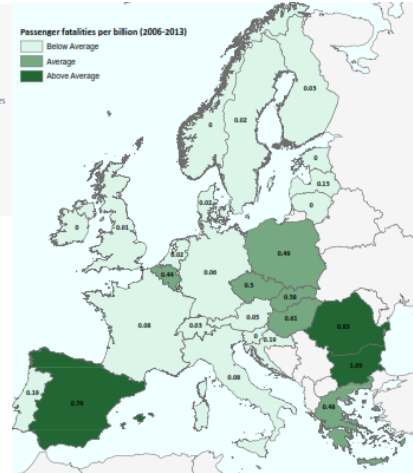
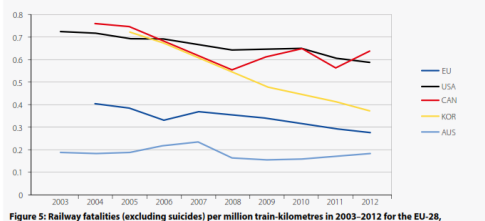


Figure 1: Significant accidents and resulting casualties for the EU-28 (2007-2012) (*)

Considerable variation across Europe



Benchmarking Europe against world class



Source: Railway Safety Performance in the European Union 2014

ERA Decision-making principles

Proportionality

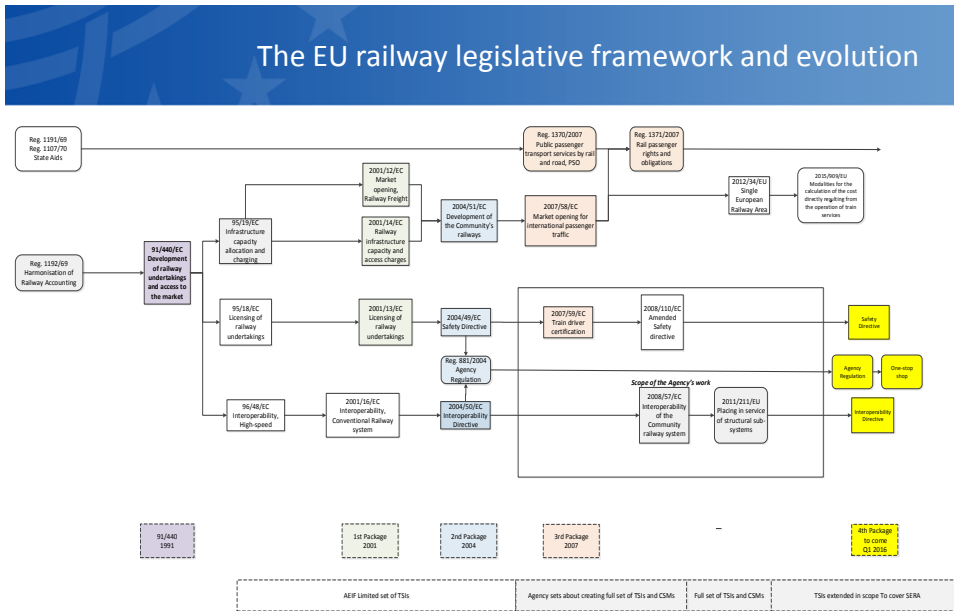
- Regulatory means should be *necessary* to reach the goal and *proportionate* to the expected benefits
- (counter) example: derailment detectors

Subsidiarity

- Do not regulate what can be regulated better at national level
- Limitation: interoperability should not be harmed
- Example: details of station accessibility (*not: train interface*)
- Best practice: high level functional requirements

No overlap

- ... with other pieces of regulation, e.g. 2001/14
- Example: rolling stock-side features beneficial to wayside maintenance should be handled via access charging, as far as is reasonably practicable, or even not at all (flange lubrication, carbon strips, ...)



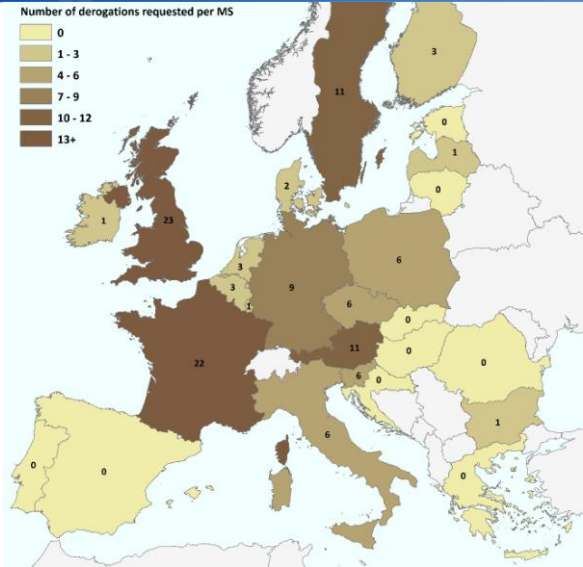
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Barriers to Railway Interoperability and their removal

- › Interoperability without borders (i.e. free movement of trains)
- › Achieved through Technical Specifications for Interoperability (TSIs) supported by Common Safety Methods, Targets and Indicators (CSMs, CSTs and CSIs)
- › TSIs offer a larger scope for standardisation thereby lowering equipment costs.
- › However, TSIs have Specific Cases and Open Points. These mean that National Technical Rules create barriers to achieving Interoperability
- › Would you like to hazard a guess as to how many NTRs there are?
- › Then there are derogations! (usually based on projects, e.g. Crossrail Central Core control is CBTC rather than ETCS)

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Technical barriers for vehicles resulting from derogation to Infra related TSIs



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Standardisation - Other Transport Modes



Boeing 737 family 4 000 units

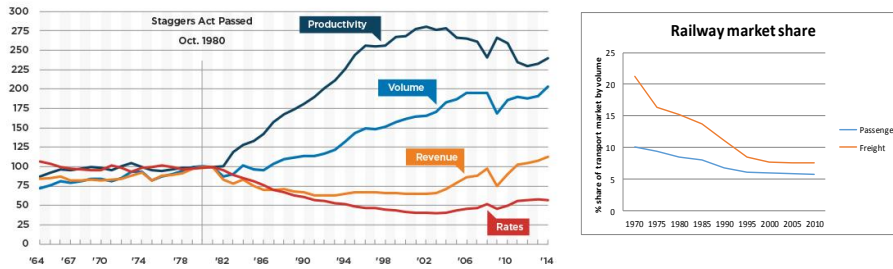
Airbus 320 family 3 000 units

TGV (seven types) 550 units

Shinkansen family approx. 600 units

Costs and Benefits of Innovation

If the EU wants to emulate the success of the US railways
 what does it have to do and where does the UK fit in?



Three models exist at the moment in the EU

- Complete separation (Sweden, UK)
- Separation of key powers (France until 2014)
- Holding company (Germany)

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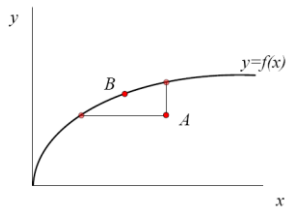
Over-riding need for more efficient railways

1. ERA's and EC's Benchmarking Studies show that railways in Europe can be more efficient – either through reduced state intervention or increased railway outputs.
2. Back in the 1980's there were incumbents, guaranteed their budgets by Governments and failing to capture the growth taking place in the transport markets. They required an excess of resources whilst failing to provide what customers wanted with a soft budget constraint. How could the EC take action to address these points?
 - ›The critical areas of concern are to:
 - ›Introduce competition to bring about customer orientation while reducing costs with a more difficult budget constraint.
 - › However, without substantial progress on interoperability (and harmonised safety regulatory frameworks) the full benefits of market opening will not be realised.

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Changing efficiency levels

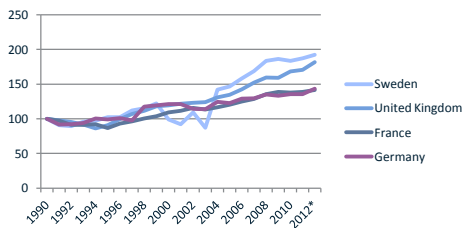
- Production frontier: maximum level of outputs for given level of inputs
- For each observation the level of efficiency is determined relative to the frontier
- For given outputs: Are the use of inputs minimised?
- For given inputs: Are the outputs maximised?



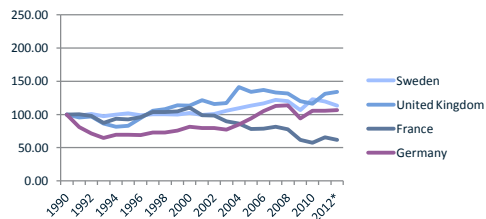
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UK performance

Development passenger in passenger-km (1990=100)



Development freight in tonne-km (1990=100)



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What Europe wants now!

- › **Commissioner Violetta Bulc: embrace Fourth Railway Package or lose funding**
- ›
- › **IRJ at ERA *Moving Towards the Single European Rail Area* conference, Luxembourg: European transport commissioner Mrs Violeta Bulc has warned that there will be no more European Union funding for rail investment unless member states and railways embrace the Fourth Railway Package when it comes into force next year.**
- › "A lot of the network has already been electrified and rail is a good answer to congestion", she says. "But I expect you to lower your prices and improve efficiency".

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Concluding remarks

- › UK has been doing what Europe wants for its railway since 1994.
- › However, because it was the first modern railway its infrastructure was mainly built before 1855 – it is a small railway. To adopt modern standards is costly – but if you have a busy railway there might be business and use cases that will support the transition.
- › The 2010 White Paper set out a possible vision for the railway to 2050:
 - › *The majority of medium-distance passenger transport should go by rail +176 billion pass-km*
 - › *Road freight over 300 km: 30% should shift to other modes by 2030 and > 50% by 2050. For rail +360 billion ton-km (+87%)*

ERA's new task is to assist with improving the competitive position of the railway sector

- › Advert. We have some paid traineeships! See our website.

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Making the railway system work better for society.

era.europa.eu

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